

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): An intravascular treatment device, comprising:

a contractable stent locatable interior of an aneurysmal site in a blood vessel, said stent having a middle portion, a first end portion and a second end portion, said stent having a helical configuration, each turn of said helix having a diameter independent of the diameter of any other turn and wherein said middle portion has a diameter greater than either of said first end portion or said second end portion;

wherein the stent supports the aneurysmal site upon deployment by engaging the inwardly-facing surface of the vessel wall,

wherein each turn of said helix is capable of a shape-accommodating contraction contracts when the aneurysmal site contracts due to healing such that the diameter of at least one of said turns after contraction is less than the diameter of said turn prior to contraction, and

wherein said stent comprises at least one therapeutic agent.

Claim 2 (canceled): ~~The treatment device of claim 1, wherein the stent has a helical configuration.~~

Claim 3 (currently amended): The treatment device of claim ~~[[2]]~~ 1, wherein the stent comprises at least one helix.

Claim 4 (previously presented): The treatment device of claim 3, wherein the stent comprises a double-helix.

Claim 5 (previously presented): The treatment device of claim 4, wherein the stent comprises a triple-helix.

Claim 6 (previously presented): The treatment device of claim 1, wherein the stent is self-expandable.

Claim 7 (original): The treatment device of claim 1, wherein the stent comprises a polymer.

Claim 8 (original): The treatment device of claim 7, wherein the polymer is biodegradable.

Claim 9 (original): The treatment device of claim 8, wherein the polymer is cellulose acetate, cellulose acetate proprionate, cellulose butyrate, cellulose proprionate, cellulose valerate, cumaroneindene polymer, dibutylaminohydroxypropyl ether, ethyl cellulose, ethylene-vinyl acetate copolymer, glycerol distearate, hydorxypropylmethyl cellulose phthalate, 2-methyl-5-vinylpyridine methylate-methacrylic acid copolymer, polyamino acids, polyanhydrides, polycaprolactone, polybutidiene, polyesters, aliphatic polyesters, polyhydroxybutyric acid, polymethyl methacrylate, polymethacrylic acid ester, polyolesters, polysaccharides, such as alginic acid, chitin, chitosan, chondroitin, dextrin, dextran, proteins such as albumin, casein, collagen, gelatin, fibrin, fibrinogen, hemoglobin, transfferrin, vinylchloride-propylene-vinylacetate copolymer, palmitic acid, stearic acid, behenic acid, aliphatic polyesters, hyaluronic acid, heparin, kearatin sulfate, starch, polystyrene, polyvinyl acetal diethylamino acetate, polyvinyl acetate, polyvinyl alcohol, polyvinyl butyral, polyvinyl formal, poly(D,L-lactide), poly(D,L-lactide-co-glycolide), poly(glycolide), poly(orthoglycolides), poly(orthoglycolide acrylates), poly(ortho acrylates), poly(hydroxybutyrate), poly(alkylcarbonate) and poly(orthoesters), poly(hydroxyvaleric acid), polydioxanone, poly(ethylene terephthalate), poly(malic acid), poly(tartronic acid), polyanhydrides, polyphosphazenes, or blends, admixtures, or co-polymers thereof.

Claim 10 (original): The treatment device of claim 8, wherein the therapeutic agent is covalently linked to the polymer.

Claim 11 (original): The treatment device of claim 7, wherein the polymer is not biodegradable.

Claim 12 (original): The treatment device of claim 11, wherein the polymer is poly(ethylene-vinyl acetate) ("EVA") copolymers, silicone rubber, polyamides (nylon 6,6), polyurethane, poly(ester urethanes), poly(ether urethanes), poly(ester-urea), polypropylene, polyethylene, polycarbonate, PEEK, polytetrafluoroethylene,

expanded polytetrafluoroethylene, polyethylene terephthalate (Dacron), polypropylene or blends, admixtures, or co-polymers thereof.

Claim 13 (original): The treatment device of claim 7, wherein the polymer is a pH-sensitive polymer.

Claim 14 (original): The treatment device of claim 13, wherein the pH-sensitive polymer is poly(acrylic acid) or its derivatives; poly(acrylic acid); poly(methyl acrylic acid), copolymers of poly(acrylic acid) and acrylmonomers; cellulose acetate phthalate; hydroxypropylmethylcellulose phthalate; hydroxypropyl methylcellulose acetate succinate; cellulose acetate trimellitate; or chitosan.

Claim 15 (original): The treatment device of claim 7, wherein the polymer is a temperature-sensitive polymer.

Claim 16 (original): The treatment device of claim 15, wherein the temperature-sensitive polymer is poly(N-methyl-N-n-propylacrylamide); poly(N-n-propylacrylamide); poly(N-methyl-N-isopropylacrylamide); poly(N-n-propylmethacrylamide); poly(N-isopropylacrylamide); poly(N,n-diethylacrylamide); poly(N-isopropylmethacrylamide); poly(N-cyclopropylacrylamide); poly(N-ethylmethacrylamide); poly(N-methyl-N-ethylacrylamide); poly(N-cyclopropylmethacrylamide); poly(N-ethylacrylamide); hydroxypropyl cellulose; methyl cellulose; hydroxypropylmethyl cellulose; and ethylhydroxyethyl cellulose, or pluronics F-127; L-122; L-92; L-81; or L-61 or copolymers thereof.

Claim 17 (original): The treatment device of claim 1, wherein the stent comprises metal.

Claim 18 (previously presented): The treatment device of claim 17, wherein the metal is a metal alloy.

Claim 19 (original): The treatment device of claim 18, wherein the metal alloy is NiTi.

Claim 20 (original): The treatment device of claim 1, wherein the therapeutic agent is at least one of a metalloproteinase inhibitor, cyclooxygenase-2

inhibitor, anti-adhesion molecule, tetracycline-related compound, beta blocker, NSAID, or an angiotensin converting enzyme inhibitor.

Claim 21 (original): The treatment device of claim 20, wherein the cyclooxygenase-2 inhibitor is Celecoxib, Rofecoxib, Parecoxib, green tea, ginger, turmeric, chamomile, Chinese gold-thread, barberry, Baikal skullcap, Japanese knotweed, rosemary, hops, feverfew, oregano, piroxicam, mefenamic acid, meloxicam, nimesulide, diclofenac, MF-tricyclide, raldecoxide, nambumetone, naproxen, herbimycin-A, or etoicoxib.

Claim 22 (original): The treatment device of claim 20, wherein the anti-adhesion molecule is anti-CD18 monoclonal antibody.

Claim 23 (original): The treatment device of claim 20, wherein the tetracycline-related compound is doxycycline, aureomycin, chloromycin, 4-dedimethylaminotetracycline, 4-dedimethylamino-5-oxytetracycline, 4-dedimethylamino-7-chlorotetracycline, 4-hydroxy-4-dedimethylaminotetracycline, 5 a, 6-anhydro-4-hydroxy-4-dedimethylaminotetracycline, 6-demethyl-6-deoxy-4-dedimethylaminotetracycline, 4-dedimethylamino-12a-deoxytetracycline, 6 $\alpha$ -deoxy-5-hydroxy-4-dedimethylaminotetracycline, tetracyclinonitrile, 6- $\alpha$ -benzylthiomethylenetetracycline, 6-fluoro-6-demethyltetracycline, or 11- $\alpha$ -chlorotetracycline.

Claim 24 (original): The treatment device of claim 20, wherein the beta blocker is acebutolol, atenolol, betaxolol, bisoprolol, carteolol, carvedilol, esmolol, labetolol, metoprolol, nadolol, penbutolol, pindolol, propranolol, or timolol.

Claim 25 (original): The treatment device of claim 20, wherein the NSAID is indomethacin, ketorolac, ibuprofen or aspirin.

Claim 26 (original): The treatment device of claim 20, wherein the angiotensin converting enzyme inhibitor is captopril or lisinopril.

Claim 27 (original): The treatment device of claim 20, wherein the angiotensin converting enzyme inhibitor is enalaprilat, fosinoprilat, benazeprilat, trandolaprilat, quinaprilat, ramiprilat, moexiprilat, or perindoprilat.

Claim 28 (previously presented): The treatment device of claim 7, wherein the therapeutic agent is contained in microspheres associated with the polymer.

Claim 29 (previously presented): The treatment device of claim 28, wherein the microspheres are about 50 nm to 500  $\mu$ m in size.

Claim 30 (canceled):

Claim 31 (previously presented): The treatment device of claim 1, wherein the therapeutic agent is applied as a coating to the stent, said coating further comprising a polymer.

Claim 32 (original): The treatment device of claim 31, wherein the coating is applied as a paste, thread, film or spray.

Claim 33 (original): The treatment device of claim 32, wherein the film is from 10  $\mu$ m to 5 mm thick.

Claim 34 (original): The treatment device of claim 31, further comprising a second coating deposited over the therapeutic coating.

Claim 35 (original): The treatment device of claim 34, wherein there are at least two therapeutic coatings, wherein each therapeutic coating is separated by a second coating.

Claim 36 (previously presented): The treatment device of claim 31, wherein the polymeric coating is a biodegradable coating.

Claim 37 (previously presented): The treatment device of claim 31, wherein the polymer is selected from the group consisting of cellulose acetate, cellulose acetate propionate, cellulose butyrate, cellulose propionate, cellulose valerate, cumaroneindene polymer, dibutylaminohydroxypropyl ether, ethyl cellulose, ethylene-vinyl acetate copolymer, glycerol distearate, hydroxypropylmethyl cellulose phthalate, 2-methyl-5-vinylpyridine methylate-methacrylic acid copolymer, polyamino acids, polyanhydrides, polycaprolactone, polybutadiene, polyesters, aliphatic polyesters, polyhydroxybutyric acid, polymethyl methacrylate, polymethacrylic acid ester,

polyolesters, polysaccharides, such as alginic acid, chitin, chitosan, chondroitin, dextrin, dextran, proteins such as albumin, casein, collagen, gelatin, fibrin, fibrinogen, hemoglobin, transferrin, vinylchloride-propylene-vinylacetate copolymer, palmitic acid, stearic acid, behenic acid, aliphatic polyesters, hyaluronic acid, heparin, keratin sulfate, starch, polystyrene, polyvinyl acetal diethylamino acetate, polyvinyl acetate, polyvinyl alcohol, polyvinyl butyral, polyvinyl formal, poly(D,L-lactide), poly(D,L-lactide-co-glycolide), poly(glycolide), poly(orthoglycolides), poly(orthoglycolide acrylates), poly(ortho acrylates), poly(hydroxybutyrate), poly(alkylcarbonate) and poly(orthoesters), poly(hydroxyvaleric acid), polydioxanone, poly(ethylene terephthalate), poly(malic acid), poly(tartronic acid), polyanhydrides, polyphosphazenes, or blends, admixtures, or copolymers thereof.

Claim 38 (original): The treatment device of claim 31, wherein the coating is a time release coating.

Claim 39 (original): The treatment device of claim 38, wherein the time release coating releases from about 1% to about 25% of the therapeutic agent within 10 days after deployment.

Claim 40 (original): The treatment device of claim 1, wherein the stent is formed by casting or laser cutting.

Claim 41 (original): The treatment device of claim 1, wherein the stent is deployed by a catheter.

Claim 42 (original): A method of treating an aneurysm comprising deploying the device of claim 1 in an aneurysmal site.

Claim 43 (canceled): ~~An intravascular treatment device, comprising a helical contractable stent locatable interior of an aneurysmal site in a blood vessel; wherein the stent supports the aneurysmal site upon deployment, contracts when the aneurysmal site contracts due to healing, and comprises at least one therapeutic agent.~~

Claim 44 (canceled): ~~The treatment device of claim 43, wherein the stent is biodegradable.~~

Claim 45 (canceled): ~~The treatment device of claim 44, wherein the stent comprises poly(orthoester).~~

Claim 46 (previously presented): The method of treating an aneurysm as in Claim 42 further comprising deploying a stent graft to exclude the aneurysm where a substantial portion of device of Claim 1 is disposed between the stent graft and the wall of the aneurysm.

Claim 47 (original): The method of treating an aneurysm as in Claim 46, wherein said therapeutic agent is inactive until it comes in contact with an activating agent.

Claim 48 (previously presented). The treatment device of claim 32, wherein the spray is prepared from microspheres of about 0.1  $\mu\text{m}$  to about 100  $\mu\text{m}$  in size.